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Current and Average Prices for Use
in Farm Planning
Ohio, 1978

Prepared by Agricultural Economics 610
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Introduction

Farm managers must make decisions that are influenced by future prices. Selecting the best plan from the many possible alternatives is an important managerial function. Although we have an imperfect insight into the future, some information is available that can help us select the best alternative.

Planning Horizons

Two horizons can be identified for developing farm plans. The organizational horizon (5 to 30 years) can provide for the complete depreciation of machinery, fence, tile and buildings. Acquisition of long lived productive inputs is typically based on the assumption of efficient use until fully consumed or full recovery of investment.

A shorter horizon can be used for operational decisions. This may entail one production cycle or a crop season.

The Tool Box

Past prices provide useful knowledge of relationships for predicting future price relationships. Many agricultural prices have been observed to maintain similar relationships over time. Some of these relationships have been developed as norms and standards, for example, the corn - hog price ratio.

Historical price movements (trends, cycles and seasonal changes) provide the farm manager with another useful tool as the price of one commodity tends to change other substitutes or uses of that commodity frequently lag or tend to follow. Some price trends reflect changes that encompass several production cycles and may display the effects of changes occurring in the total economy.

Cyclical movements, such as the cattle cycle, are related to the time required to expand or contract an enterprise. A high corn price in one year may result in an expanded next year's acreage and production and a lower relative price.

Seasonal price changes are directly related to the production of a commodity during the year. Corn is usually at its lowest price during the harvest period and tends to increase in accord with added storage and handling cost as the season progresses. These types of information can be used along with outlook and intention information as a means of handling an important part of farm production rules. Such managerial use can yield a more competitive firm and reduce consumer food and fibre costs.

Guides

Knowledge of past prices and price relationships can be used in evaluating many decision alternatives. The agriculture sector is not a separate and isolated segment of our economy. Every farm manager must be aware of the effects of changes in the general national and state economies.

The United States is increasingly a part of world market economic activity. World political activity impacts on trade agreements and sales commitments. Additionally, regulatory programs reflect considerable political involvement.

The planning period under consideration is important when selecting the best commodity and input prices to use for the planning of a particular farm. Ideally, the prices that will be realized as each part of the plan becomes operational, should be used in making decisions. This will yield the most accurate understanding of the realizable income and risk costs for each of the alternatives considered. Current prices with cyclical adjustments may be a good estimate of next year's prices. For a longer planning period, an average of a period of years, including both the high and low of one or several cycles may provide a useful price

relationship estimate. In any event, the set of prices selected should be sufficiently recent and selected to reflect comparable technology and yet encompass a long enough period of years to include at least one production cycle.

Generally, commodities produced on farms and inputs, such as processed livestock feeds, tend to rise and fall with the demand for farm products. However, prices of items used in farm production, such as fuel, machinery and utilities tend to rise more rapidly and fall more slowly than farm produced commodities.

Summing Up

Farm planning is a continuing process. The future is characterized by changes in: demand, technology, production performance, politics, contractual terms and the local and national economy. A farm manager must constantly attempt to estimate the future prices of items he will produce for sale. No one set of the prices involved is adequate. The manager's understanding of the tools and price guidelines can be used to help select the most desirable plan for debt repayment, estate planning and to estimate future income. Adjustments often must be made when selecting any set of prices for a particular farm program. Advantages of location, contracting ability, personal vendor-vendee contacts and operating conditions make each farm situation unique. This price information has been developed as a part of the Agricultural Economics 610 Advanced Farm Management course as representative for central Ohio in the Spring of 1978. The student involvement is an important part of developing this publication.

Grain & Hay Prices Received by Ohio Farmers, Selected Years

Item	20-Year Avg.	5-Year Avg.	1973	1974	1975	1976	1977
Grain \$/bu. ^{1/}							
Corn	1.45	2.42	1.94	3.00	2.67	2.49	2.02
Wheat	2.02	3.32	3.47	4.54	3.33	2.98	2.26
Oats	.87	1.46	1.11	1.60	1.52	1.53	1.55
Soybeans	3.44	6.11	6.44	6.46	5.24	5.60	6.80
Hay \$/ton ^{2/}							
Alfalfa	32.49	50.00	37.18	43.17	56.37	55.88	57.41
Mixed (clover-timothy)	30.23	47.07	35.13	40.37	52.87	52.83	54.17

Grain & Hay Prices Received by Ohio Farmers by Month, 1977

Month	\$ Per Bushel ^{1/}				\$ Per Ton ^{2/}	
	Corn	Wheat	Oats	Soybeans	Alfalfa	All Hay
Jan.	2.33	2.60	1.78	6.93	62.00	59.00
Feb.	2.36	2.60	1.85	7.21	65.00	62.00
Mar.	2.32	2.47	1.81	8.03	65.00	62.00
Apr.	2.34	2.38	1.79	9.30	65.50	60.50
May	2.24	2.24	1.80	9.15	58.00	54.50
June	2.10	2.08	1.56	8.16	49.50	47.50
July	1.88	2.03	1.35	6.40	49.50	48.00
Aug.	1.60	1.92	1.26	5.33	49.00	47.50
Sept.	1.56	1.94	1.23	4.82	53.00	51.50
Oct.	1.63	2.07	1.25	5.14	60.00	58.00
Nov.	1.90	2.39	1.43	5.51	68.00	58.00
Dec.	2.03	2.34	1.55	5.62	45.00	41.50
Jan. 78	2.00	2.51	1.51	5.64	65.00	62.00
Feb. 78	2.00	2.46	1.51	5.38	68.00	65.00

^{1/} Grain prices delivered at elevator. Commission handling and hauling charges must be deducted for a net farm price.

^{2/} Average price for all cuttings, baled.

SOURCE; Agricultural Prices, USDA, SRS

Average Monthly Price Received by Ohio Farmers for Selected Crops

(Dollars per Unit)

Year & Crop	Unit	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>1976</u>													
Alfalfa	Ton	60.50	61.50	56.50	50.50	53.50	53.00	56.00	54.00	54.00	56.00	57.00	58.00
All Hay	Ton	57.00	57.50	53.50	47.50	51.00	50.00	52.00	51.00	51.50	53.00	54.50	55.50
Soybeans	Bu.	4.48	4.51	4.46	4.53	4.90	6.24	6.77	6.01	6.70	5.89	6.11	6.64
Wheat	Bu.	3.27	3.55	3.42	3.19	3.12	3.22	3.15	2.79	2.79	2.54	2.31	2.43
Corn	Bu.	2.44	2.48	2.47	2.46	2.63	2.81	2.87	2.66	2.65	2.30	1.94	2.19
Oats	Bu.	1.50	1.53	1.52	1.48	1.49	1.62	1.56	1.48	1.52	1.50	1.52	1.62
<u>1975</u>													
Alfalfa	Ton	59.00	57.00	58.50	59.50	60.00	55.00	48.00	53.50	55.00	53.00	57.50	60.50
All Hay	Ton	54.50	53.00	55.00	55.50	56.00	51.50	46.00	50.00	51.50	50.00	54.50	57.00
Soybeans	Bu.	6.27	5.66	5.26	5.59	5.05	4.95	5.39	5.83	5.35	4.85	4.37	4.25
Wheat	Bu.	3.95	3.79	3.36	3.34	2.88	2.71	3.18	3.44	3.63	3.54	3.11	3.07
Corn	Bu.	3.14	2.87	2.68	2.66	2.59	2.64	2.70	2.91	2.76	2.57	2.21	2.34
Oats	Bu.	1.73	1.70	1.58	1.60	1.57	1.54	1.46	1.42	1.41	1.35	1.36	1.46
<u>1974</u>													
Alfalfa	Ton	42.00	45.00	45.00	42.50	37.50	36.50	33.50	40.00	44.00	48.50	51.50	52.00
All Hay	Ton	39.50	42.00	42.00	40.50	36.00	35.00	32.00	37.50	41.00	44.50	47.00	47.50
Soybeans	Bu.	5.91	6.12	6.07	5.23	5.26	5.17	6.08	7.53	7.46	8.22	7.35	7.11
Wheat	Bu.	6.04	6.37	5.34	4.34	3.21	3.38	4.01	4.07	4.08	4.71	4.50	4.40
Corn	Bu.	2.68	2.89	2.77	2.45	2.54	1.67	2.99	3.53	3.35	3.49	3.33	3.32
Oats	Bu.	1.51	1.66	1.67	1.50	1.42	1.40	1.37	1.66	1.67	1.76	1.77	1.82
<u>1973</u>													
Alfalfa	Ton	35.00	37.50	37.00	37.00	39.00	37.50	33.00	35.00	35.00	37.00	40.00	43.00
All Hay	Ton	33.50	36.00	35.50	34.50	36.50	34.50	31.00	33.00	33.00	34.50	37.50	42.00
Soybeans	Bu.	3.90	5.35	5.85	6.19	8.25	9.90	6.45	9.40	5.60	5.58	5.18	5.66
Wheat	Bu.	2.59	2.22	2.20	2.29	2.32	2.58	2.74	4.63	5.03	4.53	4.94	5.56
Corn	Bu.	1.40	1.35	1.39	1.44	1.66	2.10	2.20	2.80	2.12	2.11	2.23	2.48
Oats	Bu.	1.02	1.02	.99	.97	1.01	1.03	.93	1.23	1.18	1.24	1.25	1.41
<u>1972</u>													
Alfalfa	Ton	30.50	33.00	31.50	30.50	30.50	28.50	31.00	28.00	29.00	30.00	31.00	35.00
All Hay	Ton	26.00	28.00	26.50	26.50	26.50	25.00	27.00	24.00	26.00	27.00	27.00	31.00
Soybeans	Bu.	2.92	3.03	3.24	3.38	3.38	3.35	3.34	3.39	3.30	3.13	3.40	3.85
Wheat	Bu.	1.47	1.39	1.41	1.48	1.48	1.32	1.29	1.48	1.73	1.94	2.09	2.52
Corn	Bu.	1.07	1.08	1.10	1.13	1.14	1.13	1.14	1.16	1.23	1.20	1.23	1.48
Oats	Bu.	.74	.74	.73	.71	.72	.71	.69	.72	.78	.80	.84	1.00

SOURCE Agricultural Prices, USDA, SRS

Average Prices Received for Selected Commodities, Ohio

Commodity	Unit	1973	1975	1977
Barley	bu.	\$ 1.43	\$ 2.15	\$ 6.90
Rye	bu.	1.61	2.48	2.25
Popcorn	cwt.	3.90	9.10	8.10
All Hay	ton	37.00	52.87	56.60
Tobacco, Burley Type 31	lb.	.93	1.06	1.16
Potatoes, All	cwt.	6.45	5.27	4.32
Maple Syrup	gal.	8.50	10.00	12.00
Apples	lb.	.112	.103	.155
Peaches	lb.	.170	.194	.170
Tart Cherries	ton	471.00	449.00	600.00
Grapes	ton	219.00	206.00	202.00

SOURCE; Statistical Reporting Service, USDA

Livestock and Livestock Prices Received by Ohio Farmers

Item	Unit	1972	1973	1974	1975	1977
Market Hogs (190-220#)	cwt.	\$ 25.30	\$ 39.00	\$ 34.93	\$ 48.15	\$ 39.70
Slaughter Lambs	cwt.	29.00	35.70	39.30	42.80	49.50
Ewes	cwt.	8.50	13.30	12.05	11.77	14.00
Calves	cwt.	48.00	63.20	53.73	38.53	42.00
Beef Steers & Heifers	cwt.	34.40	44.50	40.30	39.83	37.60
Cows	cwt.	23.80	33.20	25.80	20.61	25.10
Milk Cows	head	368.00	517.00	546.00	430.00	483.00
Fluid Milk Blend	cwt.	4.47	7.42	8.80	8.98	10.70
Manufacturing Grade Milk	cwt.	4.97	5.59	6.86	7.25	8.45
Wool	lb.	.29	.55	.37	.25	.62
Eggs	doz.	.26	.50	.47	.47	.46
Broilers	lb.	.13	.23	.21	.27	.26
Turkeys	lb.	.23	.39	.28	.34	.40

SOURCE: Agricultural Prices, USDA, SRS.

Feeder Cattle Prices Per 100 Pounds, Kansas City
for Selected Years

Month	Choice Feeder Steer Calves			
	(300-500#) ^{1/}		(300-500#) ^{1/}	
	1974	1975	1976	1977
January	\$56.20	\$25.88	\$30.80	\$32.60
February	56.95	26.29	34.20	34.70
March	55.21	26.76	34.30	36.40
April	54.15	31.95	36.50	38.20
May	47.18	33.78	38.20	38.50
June	42.80	34.90	38.00	35.30
July	40.85	32.43	35.50	35.80
August	37.38	29.70	35.20	37.00
September	36.60	34.44	33.80	38.90
October	29.73	35.00	32.10	37.40
November	29.71	34.46	30.30	36.40
December	26.44	36.43	31.80	37.10
Average	42.77	31.84	33.80	36.90

Choice Feeder Steers (550-750#) ^{1/}				
Month	1974	1975	1976	1977
January	\$48.11	\$21.37	\$34.50	\$33.00
February	47.71	22.27	35.10	33.70
March	43.56	23.81	35.10	34.80
April	38.32	25.99	36.90	36.00
May	37.81	28.76	38.50	37.80
June	33.22	30.05	38.00	35.40
July	33.95	28.44	35.60	36.00
August	31.27	28.43	34.50	37.00
September	27.38	29.56	33.90	36.30
October	27.04	32.59	33.50	37.00
November	23.78	31.70	33.40	36.80
December	21.95	31.15	33.40	37.70
Average	34.51	27.84	35.10	36.30

^{1/} Price differential between choice and good in a given class averaged about \$2.50. Heifers average \$2.50-3.00/cwt. less than steers. However, these relationships may widen or narrow.

SOURCE: Market News Livestock Division, USDA, SRS.

Ohio Feeder Calf Sale Prices
Fall 1977

		Price	
	Pounds/Head	Cwt.	Head
<u>Steers</u>			
Prime	540	\$ 45.52	\$246.18
Choice	493	40.45	199.57
Good	480	34.75	166.92
<u>Heifers</u>			
Choice	444	29.99	133.24
Good	465	24.64	114.37

Comparative Feeder Calf Prices, Ohio
Selected Years (per cwt.)

Year	Grade			
	Choice		Good	
	Steers	Heifers	Steers	Heifers
1977	\$40.45	\$29.99	\$34.75	\$24.64
1975	34.36	24.40	26.17	19.27
1973	58.16	48.97	51.65	45.56
1971	48.70	37.09	46.42	37.12

Feeder Calf Price Differential
1971-1977

Year	Per Cwt.	
	Steers	Steers-Heifers
	Choice-Good	Good
1977	\$ 5.69	\$ 10.11
1975	8.19	6.90
1973	6.51	6.09
1971	2.28	9.30

SOURCE: 1977 Fall Ohio Approved Feeder Cattle Sales

Feeder Pig Auction Prices
by Months, 1977

Month	#/Head	\$/Cwt.	\$/Head
January	63.9	50.73	31.31
February	62.8	60.74	36.71
March	61.4	77.19	44.17
April	57.0	86.81	46.97
May	54.5	83.66	43.91
June	55.2	71.69	38.03
July	54.6	74.53	38.99
August	53.9	85.25	44.19
September	53.0	78.35	39.44
October	53.7	67.89	35.22
November	56.6	65.79	35.70
December	56.5	60.50	33.29
1977 Average	56.9	67.18	33.39

Feeder Pig Auction Prices
1973-1977

Year	#/Head	\$/Cwt.	\$/Head
1973	52	68.81	35.61
1974	49	48.50	25.41
1975	53	91.30	48.30
1977	56.9	67.18	33.39

SOURCE: Herbert H. Hadley, Summary and Analysis of 1977 Ohio Graded Feeder Pig Auctions, Cooperative Extension Service, MM-374, January 1978.

Retail Prices of Commercial Feeds, Ohio
Spring 1978

Feed	Price/cwt
Bran	\$ 7.40
Middlings	7.00
Cottonseed Meal 41%	12.50
Soybean Meal 44%	12.00
Sow and Pig Supplement	13.30
Hog Feed 14-18%	7.80
Hog Concentrate 38-42%	13.50
Beef Concentrate 32-36%	10.50
Dairy Feed 16%	7.25
Dairy Feed 20%	8.50
Dairy Feed 32%	11.00
Calf Pellets	12.27
Calf Maker (50#)*	36.80*
Chick Starter	8.75
Laying Feed	8.00
Turkey Grower	9.00
Lamb Pellets	6.70
Sheep Blend Pellets	11.90
Free Choice Minerals	8.60

SOURCE: Agricultural Prices - bagged prices, add \$5.00/ton

Feed Price Index (1967=100)								
1970	1971	1972	1973	1974	1975	1976	1977	1978
101	105	106	160	194	187	185	202	183

Index Numbers for Selected Farm Prices
(1967 = 100)

Year	GNP	Received			Paid			Price Rec. to Paid	Ohio Farm Land
		Farm Products	Crop	Livestock	All Items	Family Living	Produc- tion		
1970	121	110	100	118	112	114	108	98	115
1971	122	113	108	118	118	118	113	96	120
1972	127	125	114	136	125	123	121	101	127
1973	134	179	175	183	144	133	146	124	147
1974	147	192	224	165	164	151	166	117	184
1975	161	185	201	172	180	166	182	103	208
1976	169	186	197	177	191	176	193	97	252
1977	179	183	193	175	202	-	200	91	331

SOURCE: Agr. Prices, USDA

Retail Fertilizer Prices in Central Ohio, Spring 1978

Analysis	Price per Ton (2,000 lbs.)
<u>Mixed Fertilizers*</u>	<u>Bulk</u>
6-24-24	\$ 129.60
6-26-26	139.20
8-32-16	145.65
9-23-30	140.60
0-22-30	125.50
19-19-19	147.40
24-12-12	136.10
0-26-26	131.55
<u>Nitrogen</u>	
Anhydrous Ammonia 82-0-0**	175.00
Urea 46-0-0	160.00
Solution 28-0-0	118.00
<u>Straight Materials</u>	
Diamonium Phosphate 18-46-0	175.00
Triple Superphosphate 0-44-0	145.00
Muriate of Potash 0-0-61	98.00
<u>Manufactured with Micronutrients</u>	
3-23-23	168.00
9-29-19	186.00
<u>Agricultural Limestone</u>	
Bulk at Plant	3.75
Spread	7.50 to 9.50

SOURCE: Grove City Farmers Exchange (Landmark); Derby Bulk Plant (Landmark)

* FOB warehouse, bagged add \$10.00 per ton, blend add \$4.00 per ton

** Plus equipment and delivery (Approx. \$14.00 per ton)

<u>Index Numbers of Fertilizer Spring Prices (1967=100)</u>								
1970	1971	1972	1973	1974	1975	1976	1977	1978
88	92	94	102	171	231	182	181	181

Farm Seeds, Ohio, 1973-1978

Seeds	Pounds per Bushel	Unit	1973*	1974**	1975*	Fall 1977*	Spring 1978**
Alfalfa (certified)	60	cwt.	\$ 80.00	\$157.00	\$126.00	\$166.00	\$127.00
Alfalfa (uncertified)	70	cwt.	73.00	148.00	103.00	151.00	--.--
Red Clover	60	cwt.	65.00	108.00	103.00	110.00	95.50
Alsike Clover	60	cwt.	36.00	56.00	66.00	88.00	--.--
Ladino Clover	60	cwt.	130.00	195.00	250.00	220.00	--.--
Sweet Clover	60	cwt.	23.00	26.00	35.00	--.--	20.55
Timothy	45	cwt.	36.00	48.00	47.00	75.00	58.80
Orchardgrass	14	cwt.	50.00	76.00	61.00	62.00	76.00
Ky. Bluegrass	15	cwt.	64.00	120.00	97.00	145.00	143.00
Ryegrass (common)	24	cwt.	34.00	--.--	31.70	--.--	28.00 (ann.) 56.00 (per.)
Fescue (tall)	25	cwt.	42.50	45.00	34.50	50.00	--.--
Seed Wheat	60	bu.	4.05	--.--	5.90	--.--	3.50-4.00
Seed Oats	32	bu.	2.55	3.40	3.53	--.--	4.00
Seed Barley	48	bu.	3.50	5.00	--.--	--.--	5.00
Seed Corn (hybrid)	56	bu.	22.00	29.00	34.50	--.--	38.00
Soybean Seed	60	bu.	8.70	9.50	10.30	--.--	10.25

SOURCE: * Ag Prices, Crop Reporting Board, SRS, USDA
 ** Landmark, Hilliard, Ohio

Utilities and Milk Hauling Expenses
 Ohio, 1977

Item	Cost
<u>Utilities (Average/Month)</u>	
Dairy Farms	\$ 150.00
Corn-Hog Farms	180-200.00
Cash Crop-Grain Farms	100.00
Beef Farms	80.00
Hauling Charge for Milk (per cwt.)	
Hauling Charge	.35 - .50*

SOURCE: Ohio Farm Account Summaries
 * OSU Dairy and Farm Management Budgets

Labor, Fuel Consumption, Insurance, Taxes, Land Prices and Land Rent, Interest Rates, Spray Materials, Crop Insurance and Management Fees, Ohio, 1978

Item	Cost per Unit			
<u>Labor</u>	<u>Wages*</u>			
	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Per Hour without Board	\$2.75	\$2.81	\$2.90	\$3.12

*Farm Labor, February 23, 1978

<u>Fuel and Oil</u> (1977 Farm Business Analysis Report)	<u>Average per Crop Acre</u>
Beef Feeding Farms	\$11.96
Dairy Farms	11.90
Corn-Hog Farms	14.25
Cash Crop-Grain Farms	8.13
Beef Breeding Farms	.53*

*Per cwt. of beef produced

Average Fuel Consumption under Rated Loads
(1977 Tractor Performance Report based on Nebraska Tractor Tests)

<u>No. of Plow Tractor</u>	<u>Fuel</u>	<u>Horse Power Required</u>	<u>Gallons an Hour</u>
2-3	Gasoline	40-60	3.2
2-3	Diesel	40-60	3.3
3-4	Gasoline	60-80	4.5
3-4	Diesel	60-80	3.8
4-5	Gasoline	80-100	5.6
4-5	Diesel	80-100	5.5
5-6	Gasoline	100-120	8.3
5-6	Diesel	100-120	5.9
6-7	Diesel	120-140	7.9

<u>Gasoline and Oil</u> (off farm tax 11¢/gal)	<u>Per Gallon - Spring 1978</u>	
	<u>On Farm</u>	<u>Off Farm</u>
Gasoline, bulk (8,000 gallon purchase)	\$.47	\$.58
#2 Diesel Fuel (8,000 gallon purchase)	.43	.54
Motor Oil		
Heavy Duty Detergent		
55 gallon drum (\$101.75)	1.85	
small quantity	3.90	
Regular	1.76	
Antifreeze	3.99	
Grease		
35# Pail	18.70	
Cartridge		
14 oz.	.97	
3 oz.	.56	

	<u>Spring 1978</u> <u>each</u>
Storage Batteries, 12 Volt	
54 plate	
Regular	\$41.95
Extra Capacity	45.95
Long Life	59.95
66 plate	
Regular	49.95
Long Life	59.95

Insurance, Mutual Companies

The insuring company typically requires that at least 70% of the current value of buildings and 80% of the value of personal property be covered. Often an insurance package for the entire farm may have a more favorable rate than the individually insured items. The quoted rates are for coverages with \$50.00 deductible

	<u>Fire and extended Coverage</u> (Annual Cost per 1,000)
Farm Homes	
12,000 minimum	\$4.05
20,000	3.40
30,000	3.43
(Includes 40% of the insured value for household contents and 20% for family living expenses)	
Barns	4.80
Machinery and Equipment	4.20
Livestock	3.30
Silo	4.80
Hay and Straw	8.30

For Vandalism and Malicious Mischief add \$.40 for both occupied and unoccupied.

<u>Interest Rates</u>	<u>Percent</u>
Long Term Real Estate Loans	9.0-10%
Intermediate and Short Term Credit	8.5-10%

Real Estate Tax

Market Value Real Estate*	Millage Rates	Tax Payment per \$1,000
Typical Rates	\$/1,000	of Market Value
Rural Hill Counties	35	\$11.00-14.00
Rural Flat Counties	40	12.00-16.00
Urban Counties	50	15.00-19.00

*Includes land, buildings and improvements.

Example: Market Value	\$6,000
Assessment Ratio	x .35
Assessed Value	2,100
Mill Rate	.40
Annual Tax	\$84.00

Current Agricultural Use Value (CAUV)

Current Agricultural Use Value taxation can be elected for any qualified farm property. This tax applies to the land only. Buildings are assessed and taxed based on market value.

CAUV Tax Charge per Acre (Land only)*			
	High	Low	Typical
Cropland	\$17.00	\$ 4.00	\$ 7.00
Pasture	3.50	.50	1.25
Woodland	1.60	.30	.60

*Value of buildings and improvement must be added in accord with market valuation.
This is computed as the market value x 35% x the millage rate for the tax district.

Average Dollar Value of Farm Real Estate Per Acre - \$870

Average Dollar Value of Farm Real Estate Per Operating Unit - \$136,000

Ohio Farmland Value			
Year	Average Value per Acre	Cash Rent/Acre	
		Cropland	Pasture
1974	\$ 630	\$33.90	\$15.50
1975	771	40.40	17.40
1976	861	47.80	18.00
1977	1,131	58.20	20.90

Typical Crop Insurance Premiums and Coverage
Central Ohio, 1978
(Midrate premium and coverage)

Crop	Premium	Coverage Planting Period		
		1	2	3
Corn	\$5.00	(5/15) \$103	(5/30) \$90	(6/10) \$70
Soybeans	\$3.80	(6/5) \$ 58	(6/15) \$50	(6/30) \$38
Wheat	\$2.50			(11/5) \$56

() = latest date for coverage - crop not insurable after period 3

Coverage guarantee = acres x coverage x share

Professional Farm Management Fees for Corn Belt States

	Percent of Owner's Share
Livestock share based on direct managed farm -	10
Crop share based on direct managed farm -	8
Minimum annual fee -	\$1,500 - \$2,000

Farm Chemicals, Spring 1978

Herbicides and Insecticides	Price per Unit
Atrazine 80% WP	1.97/lb.
Lorox WP 50	4.05/lb.
2-4D 4 lb. Amine	6.37/gal.
2-4D 4 lb. Low Volatile Ester	9.83/gal.
CIPC	13.25/gal.
Treflan, liquid	6.81/qt.
Banvel	32.40/gal.
Lasso 2, granular	13.52/gal.
Sutan	15.45/gal.
Eptam 7E	21.70/gal.
Sevin 80% sprayable	1.40/lb.
Amitrol T	15.60/gal.
Malathion 5#/gal.	12.00/gal.
Toxaphene 6#/gal.	5.10/gal.
Guthion	2.65/lb.
Hog Rub Insecticide	13.40/application
Paraquat	38.00/gal.
Princep 80W	2.50/lb.
Bladex 80W	2.20/lb.
Bladex 15G (50 lbs.)	.66/lb.
Dyfonate 20G (50 lbs.)	1.05/lb.
Furadan 10G (50 lbs.)	.72/lb.
Imidan 50W	1.93/lb.
Diazinon 50W	2.65/lb.
Diazinon AG	22.00/gal.
Methoxychlor 50W (Marlate)	1.50/lb.

Machinery and Equipment Prices

Many things enter into the determination of machinery prices, such as dealer aggressiveness, resale value of machines traded in, the value of the machine purchased, the dollars involved, public relations, the possibility of future purchases, service required and bargaining abilities. Dealers may use a general pricing policy, such as cost plus a mark-up of five to twenty percent, others discount the manufacturers suggested retail price.

The options selected, services and quality of equipment can greatly influence the price. A feature considered as standard by one company may be offered as an option by another. Thus, machine prices quoted vary considerably from one company and one dealer to another.

Factors other than price should be carefully considered before purchasing machinery. Among these factors are: 1) The reliability and reputation of the manufacturer. 2) The service and business practices of the individual dealer. 3) Availability of parts and service. 4) Machine performance satisfaction.

Prices on the following pages were computed from the prices quoted for the machines as typically equipped and purchased. The prices quoted by several machinery companies as their "most usual" selling price were averaged to obtain the "farmer" prices.

Farmer Equipment Prices
Ohio, Spring 1978

1. <u>Trucks</u>	<u>Per Unit</u>
3/4 ton pick-up - wide box 4-speed trans., radio	\$ 5,900
1 1/2 - 2 ton chasis and cab 4-speed trans., standard option	\$ 11,000

2. Tractors - Diesel

36 HP	\$ 7,500
40 HP	10,000
53 HP	13,450
60 HP	14,400
70 HP	14,300
81 HP	17,200
90 HP	22,300
100 HP	21,400
120 HP	25,400
140 HP	29,500
161 HP	30,000
181 HP	35,000
185 HP 4WD	43,250
215 HP 4WD	50,800

3. Grain Harvest

Combines - Separator unit, self propelled

<u>Engine Horsepower</u>	<u>Capacity</u>		<u>Price</u>
	<u>Grain Table(feet)</u>	<u>Corn Head(rows)</u>	
70	13 (13 - 15)	2 (2 - 4)	\$22,000
100	13 (13 - 18)	4 (4 - 6)	28,000
120	14 (14 - 20)	4 (4 - 6)	32,000
140	16 (14 - 22)	6 (4 - 8)	42,000
160 - 180	16 (14 - 24)	8 (4 - 8)	50,000

Grain Table

Floating sickle bar, width in feet

13	\$ 5,000
16	5,400
18	5,700
20	6,100
22	6,400

		<u>Per Unit</u>
Corn Head	Rows	
	2	\$ 2,800
	3	4,000
	4	6,600
	6	10,500
	8	12,000
Corn Picker	Rows	
pull type	1	\$ 4,000
	2	7,000
	3	8,500
Corn Picker Sheller	Rows	
pull type	1	5,000
	2	8,000
	3	10,000
Wagons, 6 T gear with tires		\$ 540
Gravity grain bed		850
Auger Grain Cart, 400 bu		\$ 4,800
Grain Augers with Electric Motor		
<u>Length</u>	<u>Diameter</u>	
	6"	8"
26'	\$1,300	\$ --
31'	1,410	--
36'	1,620	--
44'	1,800	2,300
49'	1,890	2,390
54'	1,980	2,460

4. Tillage

Plows, bottom	3	\$ 1,200
	4	3,000
	5	3,500
	6	3,700
	7	5,000
	10	9,500
Chisel Plows, pull type, folding frame		
	18'	\$ 4,618
	10" drop extension	49
	10" extension	40
	26'	\$ 6,156
	10" extension	40
	17" extension	48
Discs, non-fold		
	18"	\$ 2,800
	20"	3,100
	22"	3,400

5. <u>Planting</u>			<u>Per Unit</u>
Corn Planters, 30" row, air type			
	4 row		\$ 6,758
	6 row		9,000
	8 row		16,077
	12 row		20,444
Grain Drills -			
	13' x 7"		\$ 3,000
	17' x 7"		3,700
	24' x 7"		6,100
6. <u>Cultivation</u>			
Row Crop Cultivator,			
	4 row, non-fold		\$ 1,800
	6 row, non-fold		2,000
	8 row, fold		4,231
	12 row, fold		5,600
Field Cultivators, 10 1/2 fold type			\$ 1,400
Hydraulic extensions			
	6"		60
	12"		64
	18"		67
	24"		102
	30"		112
Sprayer, 300 gal.			\$ 1,450
7. <u>Forage</u>			
Mowers -			
	7'		\$ 1,080
	9'		1,410
Side Delivery Rake -			
	9' mounted		\$ 1,150
	9' pull		1,370
Windrowers, SP Gas -			\$ 10,695
	15' head		2,985
	18' head		3,743
	24' head		4,245
Windrowers, pull type, PTO -			
	15		\$ 3,177
	18		3,591
	21		3,743
	25		4,522
Mower Conditioner -			
	9' pto		\$ 5,000
	7' pto		3,600

	<u>Per Unit</u>
Baler, pto	
Ford (530 twine)	\$ 1,950
(530 wire)	2,260
(350 twine)	3,035
Size 14 - 18	5,000
14 - 18	6,300
Round Balers, 1500# capacity	\$ 6,100
Hay Stacker, 3T	\$ 7,000
Bale Thrower Attachment	\$ 1,200
Forage Chopper with corn and forage heads	\$ 10,675
Forage Wagons - 14' gears & bed	\$ 4,400
16' gears & bed	4,700
Elevators - 36' hand raise	\$ 1,700
40' power raise	2,500
Forage Blower	\$ 1,850
8. <u>Manure Equipment</u>	
Manure Spreader, solid type	
140 bu	\$ 1,800
200 bu	3,000
340 bu	3,440
175 bu	2,890
230 bu	3,088
Manure Spreader, liquid type	
300 gal	\$ 7,000
725 gal	3,183
1000 gal	4,113
Liquid Manure Pumps	\$ 4,000
9. <u>Other</u>	
Grinders - 95 bu	\$ 5,000
120 bu	5,685
Hydraulic Unit for longer spout	700
Electronic Scale Unit	extra \$ 1,400
Post Hole Digger - 6"	\$ 670
9"	670
12"	730

	<u>Per Unit</u>
Rear End Tractor Blade, 72"	\$ 390
Front End Loader	
2600 lb capacity	\$ 1,350
3400 lb capacity	1,900
Pressure Washers	
650 - 700 PSI, single phase	\$ 699
1200 - 1300 PSI, 3 phase	1,269
Skid Loader	
1500# lift, 30 HP, 12.5 av. ft., bucket	\$ 8,200
1500# lift, 40 HP, 12.5 av. ft., bucket	8,947

Buildings and Building and Fence Material Prices
Ohio, Spring 1978

Item	Unit	Price/Unit
<u>Fence</u>		
Treated Wood Line Posts		
3 1/2" to 4" top	ea	\$ 2.80
5" to 6" top	ea	3.50
Treated Wood End Posts, 9'		
6" top	ea	8.50
7" top	ea	12.20
8" top	ea	14.10
Steel Line Posts		
6'	ea	1.92
6 1/2'	ea	2.30
7'	ea	2.40
Wire		
32" woven 12-9 ga	20 rod	62.25
39" woven 12-9 ga	20 rod	71.99
48" woven 12-9 ga	20 rod	79.95
4 pt. barbed 12 ga	80 rod	27.60
Gates		
16' wood	ea	39.90
16' metal	ea	36.00
Brace Wire		
10# 187' 9 ga	roll	3.95
10# 200' 11 ga	roll	3.95
Electric		
Hot shot charger	ea	38.00
Battery, 6 volt	ea	12.00
Hi-line charger	ea	56.00
Wire	1/4 mile	12.50
Insulators	25	1.49
48" steel posts w/o insulators	ea	.79
<u>Drainage Tile and Installation</u>		
Clay or Cement Tile		
4" diameter	ft	.22
Ditching	ft	.16
Back fill	ft	.02
Total	ft	40.00
6" diameter	ft	.45
Ditching	ft	.16
Back fill	ft	.02
Total	ft	53.00
Plastic Tile		
4" diameter	ft	.21
Ditching	ft	.16
Back fill	ft	.02
Total	ft	39.00
6" diameter	ft	.34
Ditching	ft	.16
Back fill	ft	.02
Total	ft	42.00

Item	Unit	Price/Unit
<u>Building</u>		
Concrete, Ready Mix (12 mi)	yd	\$ 28.00
Hauling charge over 12 mi	yd/mi	.30
Concrete block 8" x 8" x 16"	ea	.42
Lay block	ea	.75
Framing Lumber (M = 1,000 board feet)		
2" x 4" dressed	M	249.00
Hemlock or fir	M	287.00
#2 or better large dimensions	M	325.00
Boards		
#2 yellow pine shiplap siding	M	321.00
#2 T & G roofers	M	235.00
#1 fir flooring	M	778.00
Rough sawed #2	M	312.00
Rough sawed utility	M	253.00
Roofing		
Asphalt shingles #235	sq	19.70
Roll roofing	roll	7.99
Galvanized steel	sq	26.44
Paint (outside barn paint)	gal	7.97
Nails, 8 penny	lb	.605
Pipe, copper 1/2"	20 ft	6.50
copper 3/4"	20 ft	11.00
Electric cable		
Indoor Use		
14/2 W/G	250 ft	15.94
12/2 W/G	250 ft	22.50
Outdoor Use		
14/2 W/G	250 ft	26.50
12/2 W/G	250 ft	34.00
Plywood		
4' x 8' exterior	1/2"	9.99
4' x 8' exterior	3/4"	14.99
Treated Poles		
Length - Ft	4" x 4"	6" x 6"
8	\$ 4.07	\$ -.--
10	5.35	-.--
12	6.42	15.48
14	7.39	18.06
16	9.51	22.32
18	-.--	25.65
20	-.--	30.00
22	-.--	34.72
24	-.--	40.10

Buildings

Poultry

Environmental control, totally enclosed, insulated floor, walls and dropped ceilings \$ 7.50-11.50/sq ft
(Ex. 40' x 175' = 7000 sq ft, cost \$67,000)

Swine

Farrowing - Environmental control, insulated and moisture proofed with crates, service and feed room \$1,250/crate
\$13.50-15.50/sq ft
Finishing - Partial slat, equipment and pens, open one side \$70.00/hd or
\$5.80-7.00/sq ft

Dairy

Complete, with free stalls and parlor \$1500-1900/cow

Machinery

Pole construction, painted steel siding, enclosed, earth floor, sliding doors (material 60%, labor 40%), site preparation not included.

	<u>Sq Ft</u>	<u>\$/sq ft</u>	<u>Total</u>
36' x 54' x 11'	1944	3.37	\$6,545
1- 18' x 11' double end door			
1- walk door			
2- skylites			
36' x 63' x 13'	2268	3.63	8,247
1- 18' x 13' double end door			
1- 18' x 13' double side door			
1- walk door			
4- skylites			
Additional 9' sections -			697
42' x 81' x 12'6"	3402	3.09	10,530
1- 18' x 14' double end door			
1- 18' x 12'6" double side door			
1- walk door			
4- skylites			
54' x 90' x 14'6"	4860	3.09	15,042
1- 24' x 16' double end door			
1- 27' x 14'6" double side door			
1- walk door			
6- skylites			

Metal construction, painted steel siding, earth floor, site preparation and construction not included, one walk door, one sliding door

<u>Size</u>	<u>Sq Ft</u>	<u>Cost/Sq Ft</u>	<u>Total Cost</u>
30' x 50' x 12'	1500	\$ 2.25	\$ 3,379.00
40' x 75' x 14'	3000	2.18	6,547.00
50' x 100' x 14'	5000	1.91	9,560.00
60' x 100' x 16'	6000	1.94	11,675.00

Livestock

Pole building, painted steel siding, open one side, earth floor, vent doors
(construction not included)

Size	Sq Ft	Cost/Sq Ft	Total Cost
32' x 64'	2048	\$ 2.24	\$ 5,500
36' x 81'	2916	2.32	6,765
36' x 96'	3456	2.60	9,000
40' x 110'	4400	2.50	11,000

Miscellaneous Livestock Equipment
Ohio, Spring 1978

Item	Price/Unit
<hr/>	
<u>Cattle and Hog Head Gate</u> (for mounting on chute)	\$ 250.00
<u>Water Equipment</u>	
Stock Tanks	
2 x 2 x 4 feet	35.00
2 x 4 x 12 feet	55.00
Automatic Fountain	
70 gallon	150.00
70 gallon with heater	205.00
80 gallon	172.00
80 gallon with heater	215.00
Pressure Drinking Water	
2 hole hog	98.00
2 hole hog with heater	115.00
cattle 50-70 head	148.00
cattle 50-70 head with heater	168.00
push in (plastic, for horses)	14.95
<u>Hog Self Feeders</u>	
Rectangular	
16 bushel 8 door	210.00
24 bushel 12 door	225.00
Round	
25 bushel 40 hogs	145.00
35 bushel 40 hogs	150.00
40 bushel 50 hogs	162.00
50 bushel 50 hogs	195.00
<u>Hog Farrowing</u>	
Farrowing crate with creep and water	110.00
Brooder lamps with bulbs	6.89
Brooder lamp socket and reflector shield	3.50

Grain Storage and Drying

Storage Bins - with stiffeners

<u>Bushels</u>	<u>D x H</u>	<u>Bin Cost</u>
9,872	27' x 18'	\$ 4,538
11,600	27' x 22'	5,210
16,919	27' x 33'	9,792
20,000	27' x 40'	11,831
22,000	27' x 48'	13,870

Fans

<u>Size</u>	<u>HP</u>	<u>3-phase motor control</u>		<u>single phase motor control</u>	
		<u>with</u>	<u>without</u>	<u>with</u>	<u>without</u>
16	3	592	510	763	645
24	5	797	718	952	834
	7.5	859	774	1081	964
27	100	1008	926		

Heaters

<u>Size</u>	<u>Fuel</u>	<u>Cost</u>	
27"	Vapor	\$ 478	250,000 to 1,200,000 Btu
27"	Liquid	664	250,000 to 1,800,000 Btu
20"	Vapor	503	
20"	Liquid	780	
20"	Natural Gas	503	
24"	Vapor	524	
24"	Liquid	802	
24"	Natural Gas	524	

Augers - universal boot augers

<u>Length</u>	<u>4" diameter</u>	<u>6" diameter</u>
10'	\$ 196	\$313
15'	213	358
20'	235	400

Wet Holding Tanks - with legs

<u>Bushels</u>	<u>Cost</u>
1,500	\$2,869
3,000	4,793

Scatter Grain Units

<u>Capacity</u>	<u>HP</u>	<u>Cost</u>
2,700 BPH	.25	\$282
3,000 BPH	.25	287
6,000 BPH	1.0	568

Grain Cleaner - .75 PH motor

	<u>Cost</u>
Large Kernel Corn	\$701
Medium Kernel Corn	678
Small Kernel Corn	701
Large Soybeans	695
Small Soybeans	680

Batch Dryer

Dries 90 bushels per hour, removing 10 percentage points of moisture.

Cost - \$6,500

Continuous Flow Dryer - removing 10 points

<u>Bushels/hour</u>	<u>Cost</u>
183	\$12,000
220	13,000
365	17,500
435	20,000

Grain Legs - belt type with buckets; cost varies with specifications and workmanship of mill rights.

Cost - \$125/ft to \$200/ft

Foundations - concrete costs approx. \$28 per cubic yard.

Storage bins with aeration and normally equipped at 80¢/bushel, complete with concrete. In-bin storage and drying with a stirring unit, floor, roof vents, etc.... at \$1.50/bushel and up, starting at 10,000 bushels.

Generally, if a farmer has approximately 15,000 bushels of corn or more to dry per season, he should look at out-of-bin drying with either batch or continuous flow dryer.

Prices will vary considerably with the amount of storage included and the type of materials handling equipment (i.e. bucket elevator, with or without grain cleaner, auger system, dry corn load out, etc.). Range will be approximately \$1.10 to \$2.50 per bushel.

Silos and Silage Feeding Equipment
Spring 1978

Silos

Tower - concrete stave (Marietta Silo)

Tons	D	x	H	Base Price	(includes roof, tripot foundation, no cement)
200	14	x	50	\$ 6,291	
250	16	x	50	7,241	
320	18	x	50	8,483	
650	20	x	70	13,862	(includes distributor)
610	22	x	60	13,030	
730	24	x	60	14,666	

Tower - sealed for haylage and corn silage (Harvester)

Tons @ 40%	D	x	H	Base Price	Foundation	Goliath Unloader	Total
225	20	x	50	\$22,900	\$1,200	\$ 9,550	\$33,650
300	20	x	60	27,900	1,200	9,550	38,650
550	25	x	80	49,950	2,800	10,400	63,150
750	25	x	90	54,500	2,800	10,400	67,700

High Moisture Grain - sealed (Harvester)

Bu	D	x	H	Base Price	Foundation	Auger	Total
8000	20	x	30	\$13,800	\$1,200	\$2,250	\$17,250
18000	25	x	42	27,100	1,500	2,400	31,000

Silo Unloaders - complete (top unloaders - Jamesway)

Diameter	-	16'	\$3,030	
Diameter	-	20'	\$3,458	- \$4,453 (ring drive)

<u>Feed Bunk Equipment</u>	<u>Per Foot</u>	<u>Total</u>
Wood post construction	\$10 - 12	--
Wood post construction with roof	\$25 - 30	--

Feed Bunks

Precast concrete

\$12.00
+ \$ 1.00 for coating

Auger Conveyor, 14" through - Jamesway

<u>Length</u>	<u>HP motor</u>		
50'	2	\$32.30	\$1,615
80'	5	29.46	2,357
120'	5	25.77	3,093

Chain Conveyor (paddles)

70' (tapered board) 45.21 3,165

Self propelled - Jamesway

<u>Length</u>		
80'	29.62	2,370
100'	27.55	2,755
160'	24.87	3,980

Silo to bunk movement - 16" elevator - Jamesway

<u>Length</u>	<u>HP</u>		
50'	1 1/2	33.68	1,684
60'	1 1/2	31.62	1,897
90'	2	28.02	2,522

Bunker Silos

<u>Dimensions</u>	<u>Price/Unit</u>
20' x 100' x 6'	\$ 7,549
30' x 100' x 6'	10,153
30' x 80' x 8'	8,712
40' x 100' x 10'	13,823

